

GALLIUM NITRIDE BASED COMPOUND SEMICONDUCTOR LIGHT- EMITTING ELEMENT

Publication number: JP2000174341

Publication date: 2000-06-23

Inventor: OKU YASUNARI; KAMEI HIDENORI

Applicant: MATSUSHITA ELECTRIC IND CO LTD

Classification:
- international: H01L33/00; H01S5/00; H01S5/323; H01S5/343;
H01L33/00; H01S5/00; (IPC1-7): H01L33/00;
H01S5/323

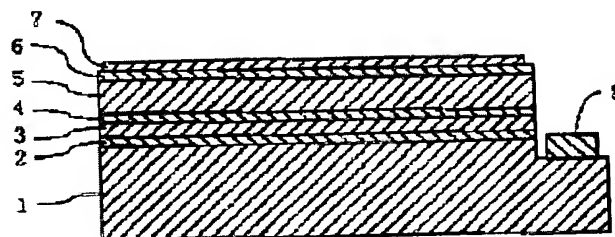
- european:
Application number: JP19980348078 19981208
Priority number(s): JP19980348078 19981208

[Report a data error here](#)

Abstract of JP2000174341

PROBLEM TO BE SOLVED: To obtain new structure, wherein light distribution characteristic directly above a light-emitting element is improved and light emission intensity can be maintained high, in a light-emitting element wherein a substrate composed of gallium nitride based compound semiconductor is used and this substrate side is made a main light-emitting surface.

SOLUTION: This semiconductor light-emitting element is provided with a double heterostructure, including a substrate 1 composed of N-type gallium nitride based compound semiconductor and an active layer 3 containing In, and an electrode connected with the substrate 1. An intermediate layer 2, in which electron density is less than $1 \times 10^{16} \text{ cm}^{-3}$ is constituted between the substrate 1 and the active layer 3. As a result, an electrode to be arranged on the main light-emitting surface side is made unnecessary, and the light distribution can be made uniform.



Data supplied from the esp@cenet database - Worldwide